

國立成功大學

112學年度碩士班招生考試試題

編 號：316

系 所：臨床醫學研究所

科 目：生命科學

日 期：0207

節 次：第 3 節

備 註：不可使用計算機

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一. 選擇題 (20 分, 每題 4 分)

1. In analyzing the number of different bases in a DNA sample, which result would be consistent with the base-pairing rules?

(A) $A = C$

(B) $A+T = G+C$

(C) $A+G = C+T$

(D) $A = G$

2. A human pandemic is

(A) a viral disease that infects all humans.

(B) a flu that kills more than one million people.

(C) a virus that increases in mortality rate as it spreads.

(D) an epidemic that extends around the world.

3. Fat digestion yields fatty acids and glycerol. Protein digestion yields amino acids. Both digestive processes

(A) add a water molecule to break bonds.

(B) consume ATP.

(C) occur inside cells in most animals

(D) require a low pH resulting from HCl production.

4. Which of the following do not participate in an inflammatory response?

(A) histamine

(B) cytokines

(C) B cells

(D) Macrophages

5. Which of the following ions has a higher concentration inside resting mammalian neurons?

(A) K^+

(B) Na^+

(C) Cl^-

(D) Ca^{2+}

二. 簡答題 (80 分, 每題 8 分)

Please briefly define the following terms:

1. Long COVID

2. mRNA vaccine

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第2頁，共2頁

3. CRISPR therapy
4. Single-cell sequencing
5. Immune escape
6. Metabolic syndrome
7. Amyloid beta
8. Warburg effect
9. Oxidative phosphorylation
10. Immunotherapy